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II. AMENDMENTS TO THE SPECIFICATION

Please insert the following paragraph at p. 1, line 3

CROSS-REFERENCE TO RELATED APPLICATIONS **GROUP 3600**

A1
We claim priority from the following applications: EPO 01610022.4, filed March 7, 2001; Denmark 2001 01790, filed December 3, 2001; and U.S. Application 60/334,585, filed December 3, 2001. The entire contents of those applications are incorporated herein by reference.

Please replace the paragraph on p. 13, beginning at line 11 with the following replacement paragraph:

A2
An example of a specific compound the amount of which is indicative of mastitis is beta-N-acetylhexosaminidase (NAGase), an intracellular, lysosomal enzyme (E.C. 3.2.1.52), belonging to a group of glycosidases. NAGase is involved in glycoprotein catabolism and is present in plasma. The concentration of NAGase in plasma is typically 11 to 20 times of that found in normal milk and two to four times that of mastitic milk. The function of NAGase in mammary secretions is presently not known. In one embodiment, the system of the invention comprises separate analysing means for analysing NAGase that is capable of detecting an amount of NAGase which is in the range of 0 to 0.1 Unit/ml (U/ml), including 0.01 to 0.09 such as 0.02 to 0.08, e.g. 0.03 to 0.05 U/ml.

Please replace the paragraph on p. 20, beginning at line 25 with the following replacement paragraph:

A3
In accordance with the above description, useful embodiments of the system of the invention ~~comprises~~ comprise data storage means ~~comprises~~ comprising a database containing for each individual herd member multiple data related to previous analyses of milk samples from herd members for the presence of individual compounds or parameters including data for identifying the milking site, milk yield data, data to identify the individual herd members, data related to parity, reproduction state and lactation state of the herd members including data indicating points in time in the reproduction

A3
concluded

and lactation cycles, data for time of sample collections, historical analytical data for the physiological and nutritional state, historical data for compositions of milk samples, feeding scheme data, disease ~~rec??ord~~ record data including data for previous disease treatments.

Please replace the paragraphs on p. 25, beginning at line 9 with the following replacement paragraphs:

A4

Fig. 4 illustrates one example of such suitable chemical analysis equipment 11 adapted to carry out the invention. In the illustrated embodiment, a partition 15 separates a wet side 17 from a dry side 19 of the chemical analysis equipment. Test strips or dry sticks 1 adapted to indicate the presence or amount of one or more of the desired compounds are stored in separate cartridges 2 holding the test strips. A test strip 3 is released from the cartridge to a conveyor belt 4. The conveyor belt advances the test strip towards a peristaltic pump 5. The inlet of peristaltic pump 6 is connected with the milk pipe line receiving milk from the milking equipment. As indicated in Fig. 4, the peristaltic pump 5 withdraws a small sample from the milk pipe line 21 or the milk sample storage means (not shown), thereby transferring of few drops to the test strip 7. A chemical reaction takes place and the test strip is analysed by a detector or test reader 8, such as a CCD camera or other photometry equipment, having a signal output port connected to a data collecting and processing device.

Fig. 5 illustrates another embodiment of analysing means adapted to carry out the invention. Again, test strips or dry sticks 4 101 adapted to indicate the presence or amount of one or more of the desired compounds are arranged on a carrier tape 2 102 covered by a sealing tape 3 103. The tape is arranged on a spool 4 104. The sealing tape 3 103 is removed by rewinding on a second spool 5 105 shortly before the stick is exposed to the milk sample. A fast loop 6 106 extracts a fraction of the milk from the milk line. A valve 7 107 opens for a short time interval to release a few drops of milk onto a test strip 4 101. A funnel 8 108 located beneath the tape is arranged to receive the excess milk as waste. The tape is moved forward whereby the test strips 4 101 after having received a few drops of milk are exposed to the detector 9 109 and